

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| | | |
|---|---|--|
| Applicant's or agent's file reference grape041102 | FOR FURTHER ACTION <div style="float: right; font-size: small;">see Form PCT/ISA/220 as well as, where applicable, item 5 below.</div> | |
| International application No. PCT/KR2004/002793 | International filing date (<i>day/month/year</i>) 02 NOVEMBER 2004 (02.11.2004) | (Earliest) Priority Date (<i>day/month/year</i>) 07 NOVEMBER 2003 (07.11.2003) |
| Applicant Natural F&P Corp. et al | | |

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☒ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. NONE

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☐ none of the figure is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2004/002793

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 A61K 35/78**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A61K 35/78, A23L 1/29

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
KOREAN PATENTS AND APPLICATIONS FOR INVENTIONS SINCE 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PubMed on-line

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|---|-----------------------|
| Y | WO 00/21526 A1 (SIGMA-TAU HEALTHSCIENCE S.P.A.), 20 April 2000 See entire document | 1-6 |
| Y | RAY, S.D. et al. 'Unique organoprotective properties of a novel IH636 grape seed proanthocyanidin extract on cadmium chloride-induced nephrotoxicity, dimethylnitrosamine (DMN)-induced splenotoxicity and mocap-induced neurotoxicity in mice' In; Res. Commun. Mol. Pathol. Pharmacol. 2000; 107(1-2): 105-28 | 1-6 |
| Y | BAGCHI, D. et al. 'Protection against drug- and chemical-induced multiorgan toxicity by a novel IH636 grape seed proanthocyanidin extract' In; Drug Exp. Clin. Res. 2001; 27(1): 3-15 | 1-6 |
| Y | BAGCHI, D. et al. 'Cellular protection with proanthocyanidins derived from grape seeds' In; Ann. N. Y. Acad. Sci. 2002; 957: 260-70 | 1-6 |
| Y | SUN, A.Y. et al. 'Ethanol and oxidative mechanisms in the brain' In; J. Biomed. Sci. 2001; 8(1): 37-43 | 1-6 |
| Y | BAGCHI, D. et al. 'Protective effects of grape seed proanthocyanidins and selected antioxidants against TPA-induced hepatic and brain lipid peroxidation and DNA fragmentation, and peritoneal macrophage activation in mice' In; Gen. Pharmacol. 1998; 30(5): 771-6 | 1-6 |

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

07 FEBRUARY 2005 (07.02.2005)

Date of mailing of the international search report

07 FEBRUARY 2005 (07.02.2005)

Name and mailing address of the ISA/KR



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2004/002793

| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|---|-----------------------|
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | BOUHAMIDI, R. et al. 'High protection by grape seed proanthocyanidins (GSPC) of polyunsaturated fatty acids against UV-C induced peroxidation' In; C. R. Acad. Sci. III. 1998; 321(1): 31-8 | 1-6 |
| P, Y | KR 2004-0084593 A (UNIGEN CO., LTD.), 06 October 2004 See abstract and claims | 1-6 |
| A | KR 2002-0069539 A (DOOSAN CORPORATION), 05 September 2002 See entire document | 1-6 |
| A | ROOPRAI, H.K. et al. 'The potential for strategies using micronutrients and heterocyclic drugs to treat invasive gliomas' In; Acta Neurochir (Wien). 2003 August; 145(8): 683-90 | 1-6 |

International application No.
PCT/KR2004/002793

International application No.
PCT/KR2004/002793

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because **they** relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because **they** relate to parts of the international application that do not comply with the prescribed requirements to such an extent **that** no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because **they** are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

This International Searching Authority found multiple inventions in this international application, as follows:

Claims 2-5 concern a pharmaceutical composition, and claim 6 concerns a health food. Although claims 2-5 and 6 are relevant to the composition comprising the same active ingredient, there is no technical relationship between a pharmaceutical composition and health food.

Hence, the application contains the following separate groups of inventions not so linked as to form a single general inventive concept (PCT Rule 13.1) :

- i) Claims 1-5
- ii) Claim 6

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any addition fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/002793

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|---|--|
| WO 00/21526 A1 | 20/04/2000 | US 6515020 JP 2002-527389 T2 EP 1117394 B1 DE 69911441 T2 CN 1323205 T CA 2344893 AA AU 6121399 A1 KR 2001-0079981 A | 04/02/2003 27/08/2002 17/09/2003 01/07/2004 21/11/2001 20/04/2000 01/05/2000 22/08/2001 |
| KR 2004-0084593 A | 06/10/2004 | NONE | |
| KR 2002-0069539 A | 05/09/2002 | NONE | |